

IMPLEMENTATION SCHEDULE

The Implementation Schedule that follows describes recovery task priorities, task numbers, task descriptions, duration of tasks, potential or participating responsible parties, total cost estimate, estimates for the next 5 years, if available, and comments. These tasks, when accomplished, are expected to lead to recovery of bull trout in the Upper Columbia Recovery Unit. Costs estimates are not provided for tasks that are normal agency responsibility under existing authorities. The total estimated cost of recovery actions is \$15.5 million.

Parties with authority, responsibility, or expressed interest in implementing a specific recovery task are identified in the Implementation Schedule. Listing a responsible party does not imply that prior approval has been given, or require that party to participate, or expend any funds. However, willing participants may be able to increase their funding opportunities by demonstrating that their budget submission or funding request is for a recovery task identified in an approved recovery plan, and is therefore part of a coordinated effort to recover bull trout. In addition, section 7(a)(1) of the Endangered Species Act directs all Federal agencies to use their authorities to further the purposes of the Endangered Species Act by implementing programs for the conservation of threatened or endangered species.

The following are definitions to column headings in the Implementation Schedule:

Priority Number: All priority 1 tasks are listed first, followed by priority 2 and priority 3 tasks.

Priority 1: All actions that must be taken to prevent extinction or to prevent the species from declining irreversibly in the foreseeable future.

Priority 2: All actions that must be taken to prevent a significant decline in species population or habitat quality, or to prevent some other significant negative effect short of extinction.

Priority 3: All other actions necessary to provide for full recovery (or reclassification) of the species.

Task Number and Task Description: Recovery tasks as numbered in the recovery outline. Refer to the action narrative for task descriptions.

Task Duration: Expected number of years to complete the corresponding task. Study designs can incorporate more than one task, which when combined may reduce the time needed for task completion.

Responsible or Participating Party: The following organizations are those with responsibility or capability to fund, authorize, or carry out the corresponding recovery task. **Bolded type** indicates agency or agencies that have the lead role for task implementation and coordination, though not necessarily sole responsibility.

BPA	Bonneville Power Administration
CC	Chelan County
CCPUD	Chelan County Public Utilities District
CD's	Conservation Districts
CT	Colville Tribe
DCPUD	Douglas County Public Utilities District
EPA	Environmental Protection Agency
FERC	Federal Energy Regulatory Commission
GCPUD	Grant County Public Utilities District
NRCS	Natural Resources Conservation Service
OC	Okanogan County
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
WDFW	Washington Department of Fish and Wildlife
WDNR	Washington Department of Natural Resources
WDOE	Washington Department of Ecology
WDOT	Washington Department of Transportation
YN	Yakama Nation

Cost Estimates: Cost estimates are rough approximations and provided only for general guidance. Total costs are estimated for the duration of the task, are itemized annually for the next five years, and includes estimates of expenditures by local, Tribal, State, and Federal governments and by private business and individuals.

An asterisk (*) in the total cost column indicates ongoing tasks that are currently being implemented as part of normal agency responsibilities under existing authorities. Because these tasks are not being done specifically or solely for bull trout conservation, they are not included in the cost estimates. Some of these efforts may be occurring at reduced funding levels and/or in only a small portion of the watershed.

Double asterisk (**) in the total cost column indicates that estimated costs for these tasks are not determinable at this time. Input is requested to help develop reasonable cost estimates for these tasks.

Triple asterisk (***) indicates costs are combined with or embedded within other related tasks.

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Priority number	Task number	Task description	Task duration (years)	Responsible parties	Cost estimates (\$1,000)						Comments
					Total cost	Year 1	Year 2	Year 3	Year 4	Year 5	
1	1.1.1	Investigate alternatives to improve low flow conditions.	4	WDNR, USFS, NRCS, WDFW, OC, CC	200	50	50	50	50		
1	1.2.2	Correct irrigation passage barriers.	5	USFS, OC, CC, CD's, WDNR, NRCS	250	50	50	50	50	50	
1	1.2.3	Screen diversions and irrigation ditches.	4	USFS, WDNR, NRCS, OC, CC, USFWS, WDFW	500	300	50	50	100		
1	1.3.4	Identify and repair, remove, or relocate culverts.	10	USFS, WDNR, CD's, OC, CC	1000	100	100	100	100	100	

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					Total cost	Year 1	Year 2	Year 3	Year 4	Year 5	
1	1.4.1	Evaluate bull trout passage at Wells, Rock Island, and Rocky Reach dams, and initiate passage studies at Wanapum Dam.	5	CCPUD, DCPUD, GCPUD, BPA, WDFW, USFWS	500	100	100	100	100	100	
1	3.3.1	Discontinue stocking of brook trout.	25	WDFW	*						
1	4.3.2	Establish genetic baselines.	3	WDFW, USFWS	180	70	100	10			
1	5.5.1	Evaluate the current and potential use of the Columbia River and lower mainstem portions of the Methow, Entiat, and Wenatchee Rivers.	5	WDFW, USFWS, BPA, CCPUD	250	50	50	50	50	50	

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					Total cost	Year 1	Year 2	Year 3	Year 4	Year 5	
1	5.5.4	Conduct problem assessments for bull trout and identify site-specific threats that may be limiting recovery efforts.	3	WDFW, USFS, USFWS	90	30	30	30			
1	6.1.1	Protect high quality habitats.	10	WDNR, WDFW, USFWS, OC, CC	5000	500	500	500	500	500	
1	6.1.2	Develop basin-wide habitat conservation efforts (e.g., Habitat Conservation Plans).	10	CD's OC, CC, WDNR, USFWS	1000	100	100	100	100	100	
1	6.2.1	Assess impacts to bull trout during hydropower relicensing.	10	CCPUD, DCPUD, GCPUD, FERC, USFWS	*						

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					Total cost	Year 1	Year 2	Year 3	Year 4	Year 5	
2	1.2.1	Reconnect floodplains.	5	USFS, WDNR, WDFW	500	100	100	100	100	100	
2	1.2.4	Assess impacts from proposed Lake Wenatchee Dam.	3	USFS, WDNR, WDFW, USFWS, CC	75	25	25	25			
2	1.3.2	Develop road management strategy.	3	USFS, WDNR, OC, CC	*						
2	1.3.5	Identify and repair, remove, or relocate roads.	10	USFS, WDNR, NRCS, WDOT, CC, OC	2,000	200	200	200	200	200	
2	1.3.6	Avoid placement of new roads in riparian areas.	25	USFS, WDNR, WDOT	*						
2	1.3.7	Assess forest practice regulations.	5	USFS, FWS, WDNR, WDFW	*						Target areas adjacent to bull trout watersheds.

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2	1.3.8	Reduce road density and road-related sediment delivery.	10	USFS, WDNR	500	50	50	50	50	50	
2	1.3.9	Develop and implement habitat restoration and protection guidelines.	3	USFS, USFWS, WDNR	*						
2	1.3.10	Ensure enforcement of mineral prospecting and placer mining regulations.	25	USFS, WDNR, WDFW	*						
2	1.3.12	Address access road impacts.	25	USFS, WDFW, USFWS	*						
2	1.3.13	Monitor mining activities.	25	USFS, WDNR, WDFW	*						

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					Total cost	Year 1	Year 2	Year 3	Year 4	Year 5	
2	1.3.14	Ensure that bull trout are considered in all planning phases of new gold mining operations.	25	USFS, USFWS	*						
2	1.3.15	Implement and monitor stream nutrient enhancement projects.	10	USFS, WDFW, YN, NMFS, USFWS	100	10	10	10	10	10	
2	1.3.16	Quantify grazing impacts.	4	WDFW, USFS, USFWS, NRCS	400	100	100	100	100		
2	1.3.17	Develop and implement livestock grazing plans.	25	WDNR, USFS, USFWS, NMFS, CD's, NRCS	*						

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2	1.3.20	Coordinate with grazing interests to minimize grazing disturbance.	3	CD's, OC, CC, USFWS, WDNR, USFS, NRCS	75	25	25	25			
2	1.4.2	Assess feasibility of providing fish passage at Leavenworth National Fish Hatchery.	2	USFWS	50	25	25				
2	2.5.1	Evaluate opportunities for experimental removal of brook trout and other competing nonnative fish species.	2	WDFW, USFS, USFWS	30	15	15				
2	2.6.1	Evaluate impacts of nonnative fish species on bull trout.	5	WDFW, USFWS, USFS	250	50	50	50	50	50	

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2	3.2.1	Ensure compliance with harvest regulations.	25	USFS, WDNR, WDFW, NRCS	*						
2	3.2.2	Reduce angler pressure.	5	WDFW, USFS	*						
2	3.2.3	Provide information to anglers.	3	WDFW, USFS	45	15	15	15			
2	3.2.4	Develop and implement a bull trout fishery management plan.	3	WDFW, YN, USFWS	60	20	20	20			
2	3.2.5	Increase natural forage (prey) base.	3	WDFW, USFWS, CCPUD	300	100	100	100			
2	3.2.6	Evaluate impacts to bull trout from the general fishing season in the Lost River.	3	WDFW, USFWS, USFS	*						

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2	3.2.7	Monitor scientific collection.	25	USFWS, WDFW	*						
2	3.4.1	Evaluate and implement harvest regulations that reduce nonnative fish populations impacting bull trout.	5	WDFW, YN	*						
2	4.3.4	Determine feasibility and appropriateness of artificial propagation.	3	USFWS, WDFW, YN	30	10	20	10			
2	5.5.5	Conduct population surveys.	5	WDFW, USFS, USFWS	500	100	100	100	100	100	
2	6.1.3	Work with watershed groups and landowners.	25	CD's, OC CC, USFWS	*						

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2	6.3.1	Ensure implementation of Washington State habitat protection laws.	25	WDNR, WDFW, WDOE	*						
2	6.3.2	Ensure full compliance monitoring of Forest and Fish Report standards.	25	WDNR, WDFW,	*						
2	6.3.3	Implement Federal land management plans that protect fish habitat (e.g., INFISH).	25	USFS	*						
2	6.3.4	Develop, implement, and enforce water quality standards for surface water in the State of Washington.	25	WDOE, EPA, USFWS, WDFW	*						
2	6.3.5	Increase monitoring and enforcement of Hydraulic Permit Applications in the State of Washington.	25	WDNR, WDFW	*						

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2	6.3.6	Develop and implement local habitat protection laws and ordinances.	25	Local Governments, OC, CC	*						
3	1.3.1	Minimize further shoreline and floodplain development.	10	USFS, OC, CC, WDNR, USFWS	500	50	50	50	50	50	
3	1.3.3	Develop and coordinate access and travel management plans.	25	USFS, WDFW, OC, CC, USFWS	*						
3	1.3.11	Maintain unroaded portions of bull trout watersheds in current roadless condition.	25	USFS, WDNR	*						

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3	1.3.18	Exclude grazing from sensitive habitat areas.	25	USFS, WDNR	*						
3	1.3.19	Identify and mitigate habitat impacts from highways and railroads.	2	WDOT, WDOE, WDNR	50	25	25				
3	1.3.21	Reduce sediment loading to streams.		USFS, OC, WDNR, USFWS, NMFS	130	30	100				
3	1.3.22	Identify and, where feasible, correct man-made barriers to fish passage in foraging and refugia habitats.	3	USFS, WDFW, USFWS	150	50	50	50			
3	1.3.23	Restore and protect habitat that is impacted by recreational campgrounds.	5	USFS	250	50	50	50	50	50	

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3	1.4.3	Evaluate downstream passage at Tumwater and Dryden dams.	3	WDFW, USFS USFWS	150	50	50	50			
3	4.3.1	Establish genetic reserve protocols.	3	USFWS, WDFW, YN	*						
3	4.3.3	Evaluate hybridization with brook trout.	3	WDFW, USFS USFWS,	*						
3	5.2.1	Develop and implement a monitoring program.	3	USFWS, USFS, WDFW	*						
3	5.5.2	Investigate potential and feasibility for reintroducing bull trout to the Chelan Basin.	3	WDFW, USFS, USFWS	150	50	50	50			
3	5.5.3	Investigate potential use of the Okanogan River by bull trout, and investigate habitat suitability.	3	WDFW, CT, USFS	150	50	50	50			

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3	5.5.6	Assess feasibility for using Patterson Lake bull trout to reestablish Methow River local populations.	3	USFS, WDFW, OC, USFWS	75	25	25	25			
3	7.3.1	Periodically review progress toward recovery goals and assess recovery task priorities.	25	USFWS, NMFS	*						